

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please ADD new claims 110-149, AMEND claims 1, 6 , 8-11, 13, 17, 18, 20, 21, 23, 30, 32, 35, 40, 41, 44, 49, 83-85, and 97-99 and CANCEL claims 3-5, 7, 12, 29, 31, 33-34, 36, 38-39, 45-48, 59-77, 79-82, 86-90, and 100-109, in accordance with the following:

1. (Currently Amended) A display apparatus capable of being connected to an external storage medium disposed external to the display apparatus, the display apparatus comprising:
a receiving processor that receives a television broadcasting signal and at least one of a digital video signal and an audio signal from the external storage medium;
a controller that, if a user commands storage of the received digital video signal and audio signal, stores the received digital video signal and audio signal in the external storage medium;
a display unit to display the received digital video signal;
a speaker to output the received audio signal; and
a port disposed on the display apparatus, through which the received digital video signal and audio signal are transmitted from the display apparatus to the external storage medium,
wherein the controller is connected to the external storage through the port.

2. (Previously Presented) The display apparatus of claim 1, wherein the controller, according to a request from the user and when the received digital video signal and audio signal are stored in the external storage medium, determines whether the received digital video signal and audio signal is to be output through the port.

3-5. (Canceled).

6. (Previously Presented) The display apparatus of claim 1, wherein if an input of the user ~~requires~~requests control of the external storage medium, the controller outputs management information through the port, and uses the management information to manage the storage or reproduction of the received digital video signal and audio signal with respect to the external storage medium.

7. (canceled)

8. (Currently Amended) The display apparatus of claim 7_6, wherein the management information for the stored-video signal and the audio signal stored in the external storage medium is displayed in an on-screen display format on the display unit.

9. (Currently Amended) The display apparatus of claim 7_6, wherein the management information for the stored-video signal and the audio signal stored in the external storage medium is output as an audio signal through the speaker.

10. (Currently Amended) The display apparatus of claim 86, wherein the management information comprises time information corresponding to a storage capacity of the external storage medium, and a list including the stored digital video signal and audio signal and additional video signals and audio signals stored in the external storage medium.

11. (Currently Amended) The display apparatus of claim 68, wherein the reproduced video signal and the audio signal are a selected-video signal and an audio signal selected from a plurality of reproducible video signals and audio signals stored in the external storage medium and which is selected by a user with reference to the management information.

12. (Cancelled)

13. (Currently Amended) A display apparatus capable of being connected to an external storage medium, the apparatus comprising:

a receiving processor to receive at least one of a digital video signal and an audio signal;
a controller that forms a virtual file system for the external storage medium, wherein,
if a user requiresrequests storage of the received digital video signal and audio signal, the controller stores the received digital video signal and audio signal in the external storage medium in real time with reference to information generated on the basis of the formed virtual file system, and

if the user ~~requires~~requests reproduction of the digital video signal and audio signal stored in the external storage medium, the controller reproduces the stored video signal and an audio signal from the external storage medium with reference to the information generated on the basis of the virtual file system; and

an output unit, to output the reproduced video signal and audio signal,
wherein the controller is connected to the external storage medium through a port.

14. (Previously Presented) The display apparatus of claim 13, wherein the controller downloads a file system stored in the external storage medium and uses the downloaded file system to form the virtual file system.

15. (Previously Presented) The display apparatus of claim 13, wherein the controller controls the storage or the reproduction to output the digital video signal and audio signal received through the receiving processor to the output unit in real time.

16. (Original) The display apparatus of claim 13, wherein the information generated on the basis of the virtual file system comprises management information for the external storage medium.

17. (Currently Amended) The display apparatus of claim 16, wherein the management information comprises ~~time information corresponding to a storage capacity of the external storage medium, and a list including the stored video signal and the audio signal and additional video and audio signals stored in the external storage medium.~~

18. (Currently Amended) the display apparatus of claim 17, wherein the controller generates the management information so that the management information is output in an on-screen display format through the output unit~~port~~.

19. (Previously Presented) The display apparatus of claim 13, wherein, when the video signal and/or the audio signal are reproduced from the external storage medium, the controller displays the video signal reproduced from the external storage medium and the received video signal together using the output unit in a Picture-In-Picture format or in a Picture-By-Picture format.

20. (Currently amended) A display apparatus connected with an external storage medium, the apparatus comprising:

a receiving processor that receives at least one of a digital video signal and an audio signal;

a compression and decompression unit that

if a user requiresrequests storing of the received digital video signal and audio signal, is set to a compression mode, and compresses the digital video signal and the audio signal received from the receiving processor, and

if the user requiresrequests reproduction of the digital video signal and audio signal stored in the external storage medium, is set to a decompression mode, and restores the digital video signal and the audio signal received from an external storage medium;

an output unit to output the reproduced digital video signal and audio signal; and

a controller that

if the user requiresrequests the storage, controls the compression and decompression unit in the compression mode and stores the compressed digital video signal and audio signal compressed by the compression and decompression unit in the external storage medium in real time, and

if the user requiresrequests the reproduction, outputs the digital video signal and audio signal from the external storage medium to the output unit through the compression and decompression unit.

21. (Currently Amended) The display apparatus of claim 20, wherein the controller forms a virtual file system for the external storage medium, and controls the storage or reproduction of the digital video and audio signals with respect to the external storage medium using the virtual file system.

22. (Previously Presented) The display apparatus of claim 21, wherein the controller downloads a file system stored in the external storage medium and forms the virtual file system using the downloaded file system.

23. (Currently Amended) The display apparatus of claim 21, wherein the controller forms the virtual file system if an input of the user requiresrequests control of the external storage medium.

24. (Previously Presented) The display apparatus of claim 20, wherein the controller generates management information for managing the stored video signal and the audio signal in the external storage medium using the virtual file system, and outputs the management information to the output unit.

25. (Original) The display apparatus of claim 24, wherein the controller generates the management information so that the management information is displayed in an on-screen display format on the output unit.

26.(Previously Presented) The display apparatus of claim 24, wherein the management information comprises time information corresponding to a storage capacity of the external storage medium, and a list including the stored digital video signal and audio signal and additional video and audio signals stored in the external storage medium.

27. (Previously Presented) The display apparatus of claim 20, wherein, when the received video signal and audio signal are output through the output unit in real time, the controller controls the storage or reproduction of the received video signal and the audio signal with respect to the external storage medium.

28. (Previously Presented) The display apparatus of claim 27, wherein, when the video signal and the audio signal are reproduced from the external storage medium, the controller displays the video signal restored from the compression and decompression unit and the received video signal together on the output unit in a Picture-In-Picture format or in a Picture-By-Picture format.

29. (Cancelled)

30. (Currently Amended) A method of operating a display apparatus configured to be capable of being connected to an external storage medium disposed external to the display apparatus, the method comprising:

forming a virtual file system for the external storage medium;

generating management information for the external storage medium using the virtual file system;

providing the generated management information to the user before the user requests the storage or the reproduction of the received digital video signal and audio signal;

receiving at least one of a digital video signal and an audio signal in the display apparatus;
and

transmitting the received digital video signal and audio signal to the external storage medium disposed external to the display apparatus; and

~~storing the digital video signal and audio signal in the external storage medium,~~
wherein the display apparatus is connected to the external storage medium through a port.

31. (Cancelled)

32. (Currently Amended) The method of claim 304, wherein the forming the virtual file system is performed if an input of the user ~~requires~~requests control of the external storage medium by the display apparatus.

33-34. (Cancelled)

35. (Currently Amended) The method of claim 340, wherein the ~~reading~~receiving and ~~reproducing~~transmitting comprises receiving a user selection indicating that the user ~~requires~~requests reproduction of one digital video signal and audio signal selected from among a plurality of reproducible video signals and audio signals stored in the external storage medium with reference to the management information output in the on-screen display format.

36. (Cancelled)

37. (Currently Amended) The method of claim 30, wherein further comprising outputting the received digital video signal and audio signal in real time through the display apparatus during the ~~storing and reading~~receiving and reproducing the received video and audio signals with respect to the external storage medium.

38-39. (Cancelled)

40. (Currently Amended) The method of claim 340, wherein the providing the generated management information comprising providing information required by the user for use by the user in controlling the external storage medium.

41. (Currently Amended) A method of operating a display apparatus connected with an external storage medium disposed external to the display apparatus, the method comprising:

- receiving at least one of a digital video signal and audio signal at the display apparatus;
- compressing the received video signal and the audio signal, if a user ~~requires~~requests storage of the received digital video signal and the audio signal;
- storing the compressed video signal and audio signal in the external storage medium in real time; and
- restoring the stored and compressed video and audio signal stored in the external storage medium, when the user ~~requires~~requests reproduction of the digital video signal and audio signal using the display apparatus; and
- outputting the restored video signal and audio signal using the display apparatus, wherein the display apparatus is connected to the external storage medium through a port.

42. (Original) The method of claim 41, further comprising:

- forming a virtual file system for the external storage medium; and
- outputting management information for the external storage medium generated on the basis of the virtual file system, before the compression or the restoration is performed.

43. (Previously Presented) The method of claim 42, wherein the storing or the restoring the compressed video and audio signal comprises the user requiring the storage or the reproduction of the compressed video and audio signal with reference to the output management information.

44. (Currently Amended) The method of claim 42, wherein the forming the virtual file system is performed if an input of the user ~~requires~~requests control of the external storage medium.

45-48. (Cancelled)

49. (Currently Amended) A reproducing apparatus connected with a storage medium disposed external to the reproducing apparatus, the apparatus comprising:
a receiving processor that receives a digital video signal and a television broadcasting signal;

a port disposed on the reproducing apparatus;
an output unit that outputs the digital video signal and the television broadcasting signal;
and
a controller that transmits the received digital video signal from the reproducing processor to the external storage medium, stores the digital video signal received through the receiving processor in the external storage medium, and controls the output unit to reproduce the received digital video signal,
wherein the controller is connected to the storage medium through the a-port.

50. (Original) The reproducing apparatus of claim 49, wherein the controller further retrieves the stored signal from the external storage medium and controls the output unit to output the retrieved signal.

51. (Previously Presented) The reproducing apparatus of claim 49, wherein the controller further stores the received signal in the external storage medium as the signal is received so as to record the signal in real time.

52. (Original) The reproducing apparatus of claim 51, wherein the controller further outputs the received signal through the output unit in real time as the received signal is being stored.

53. (Original) The reproducing apparatus of claim 51, wherein the controller further retrieves the stored signal from the external storage medium and controls the output unit to output the retrieved signal.

54. (Original) The reproducing apparatus of claim 53, wherein the controller further outputs the received signal through the output unit in real time such that the received signal is output with the retrieved signal.

55. (Original) The reproducing apparatus of claim 49, further comprising a housing which houses the receiving processor, the controller, and the output unit and which has an interface, wherein the external storage medium is external to the housing and the received signal is transferred through the interface to the external storage medium to be stored.

56. (Previously Amended) The reproducing apparatus of claim 55, wherein the controller further controls the interface in order to transmit the received signal to be stored in the external storage medium.

57. (Original) The reproducing apparatus of claim 55, wherein the interface is a Universal Serial Bus (USB) interface.

58. (Previously Amended) The reproducing apparatus of claim 55, wherein:
an external storage device includes another controller and the external storage medium,
and

the controller sends instructions through the interface to instruct the another controller to store the received signal in the external storage medium.

59-77. (Cancelled)

78. (Previously Amended) At least one medium comprising computer readable code to control at least one processing element in a computer to implement the method of claim 30.

79-82. (Cancelled)

83. (Currently Amended) The display apparatus of claim 23, wherein the external storage medium is incorporated in a Personal Digital Assistant (PDA).

84. (Currently Amended) The apparatus of claim 23, wherein the external storage medium is incorporated in an MP3 player.

85. (Currently Amended) The display apparatus of claim 23, wherein the external storage medium is incorporated in a digital video recorder.

86-90. (Cancelled)

91. (Previously Presented) The method of claim 30, wherein the digital video signal and the audio signal are received from an external audio/video (AV) device.

92. (Previously Presented) The method of claim 30, wherein the received digital video and the audio signal are stored directly in the external storage medium.

93. (Previously Amended) The method of claim 30, wherein the external storage medium is incorporated in an PDA.

94. (Previously Amended) The method of claim 30, wherein the external storage medium is incorporated in an MP3 player.

95. (Previously Amended) The method of claim 30, wherein the external storage medium is incorporated in a digital video recorder.

96. (Previously Presented) The method of claim 30, wherein the transmitting of the received digital video signal and the audio signal is performed through a USB port.

97. (Currently Amended) The method of claim 30, further comprising ~~the step of:~~
reproducing the stored digital video signal and audio signal in response to a user command.

98. (Currently Amended) The method of claim 97, further comprising ~~the steps of:~~
displaying the received digital video signal on a display screen; and
outputting the received digital video signal through a speaker.

99. (Currently Amended) The method of claim 90, further comprising ~~the step of:~~
forming a virtual file system for the external storage medium, wherein the external storage medium is incorporated PDA.

100-109. (Cancelled)

110. (New) A broadcasting signal receiver capable of being connected to an external storage medium disposed external to the broadcasting signal receiver, the broadcasting signal receiver comprising:

an output unit outputting first information to control the external storage medium, at least one of video signals and audio signals; and
a controller controlling the output unit to output the first information, reading at least one video signal and an audio signal from the external storage medium according to a request based on the first information, and controlling the output unit to output the read at least one of video signal and audio signal.

111. (New) The broadcasting signal receiver of claim 110, further comprising a Universal Serial Bus controller is controlled by the controller for transmitting and receiving second information for setting a transmitting and receiving environment between the broadcasting signal receiver and the external storage medium, and receiving the read at least one of video signal and audio signal from the external storage

112. (New) The broadcasting signal receiver of claim 111, further comprising a receiving processor receiving a broadcasting signal,
wherein the controller controls the output unit to output the read at least one of video signal and audio signal from the external storage medium together with the received broadcasting signal.

113. (New) The broadcasting signal receiver of claim 112, wherein the controller controls the output unit to output the first information as at least one of an On-Screen Display (OSD) information and an audio signal.

114. (New) The broadcasting signal receiver of claim 113, wherein the first information comprise management information for the external storage medium,
the controller generates the management information based on a virtual file system of the external storage medium and outputs the generated management information to the output unit.

115. (New) The broadcasting signal receiver of claim 114, wherein the management information includes time information corresponding to a storage capacity of the external storage medium, and list information of the at least one of video signals and audio signals stored on the external storage medium.

116. (New) The broadcasting signal receiver of claim 115, wherein the output unit comprises:
a display unit to display at least one of the video signal and the first information; and

a speaker to output at least one of the audio signal and the first information.

117. (New) The broadcasting signal receiver of claim 115, wherein the controller reads the at least one of video signal and the audio signal , which is selected by a user with reference to the management information, from a plurality of reproducible video signals and audio signals stored in the external storage medium, through the Universal Serial Bus controller.

118. (New) The broadcasting signal receiver of claim 115, wherein the controller stores the received broadcasting signal in the external storage medium with reference to the management information, through the Universal Serial Bus controller.

119. (New) The broadcasting signal receiver of claim 118, further comprising a compression and decompression unit compressing the broadcasting signal received from the receiving processor and transmitting the compressed broadcasting signal to the external storage medium through the Universal Serial Bus controller in a compression mode, and restores the at least one of video signal and the audio signal received from an external storage medium through the Universal Serial Bus controller and transmitting the restored at least one of video signal and the audio signal to the output unit in a decompression mode.

120. (New) The broadcasting signal receiver of claim 110, further comprising a receiving processor receiving a broadcasting signal,
wherein the controller controls the output unit to output the read at least one of video signal and audio signal from the external storage medium together with the received broadcasting signal.

121. (New) The broadcasting signal receiver of claim 110, wherein the controller controls the output unit to output the first information as at least one of an On-Screen Display (OSD) information and an audio signal.

122. (New) The broadcasting signal receiver of claim 110, wherein the first information comprise management information for the external storage medium,
the controller generates the management information based on a virtual file system of the external storage medium and outputs the generated management information to the output unit.

123. (New) The broadcasting signal receiver of claim 122, wherein the management information includes time information corresponding to a storage capacity of the external storage medium, and list information of the at least one of video signals and audio signals stored on the external storage medium.

124. (New) The broadcasting signal receiver of claim 110, wherein the output unit comprises:

a display unit to display at least one of the video signal and the first information; and
a speaker to output at least one of the audio signal and the first information.

125.(New) The broadcasting signal receiver of claim 123, wherein the controller reads the at least one of video signal and the audio signal, which is selected by a user with reference to the management information, from a plurality of reproducible video signals and audio signals stored in the external storage medium, through the Universal Serial Bus controller.

126. (New) The broadcasting signal receiver of claim 120, wherein the controller stores the received broadcasting signal in the external storage medium with reference to the management information, through the Universal Serial Bus controller.

127. (New) The broadcasting signal receiver of claim 120, further comprising a compression and decompression unit compressing the broadcasting signal received from the receiving processor and transmitting the compressed broadcasting signal to the external storage medium through the Universal Serial Bus controller in a compression mode, and restores the at least one of video signal and the audio signal received from an external storage medium through the Universal Serial Bus controller and transmitting the restored at least one of video signal and the audio signal to the output unit in a decompression mode.

128. (New) The broadcasting signal receiver of claim 112, wherein the receiving processor receives a video signal and an audio signal from an external audio video (AV) device.

129. (New) A method of operating a broadcasting signal receiver configured to be capable of being connected to an external storage medium disposed external to the broadcasting signal receiver, the method comprising:

outputting first information to control the external storage medium;

reading at least one video signal and an audio signal from the external storage medium according to a request based on the first information; and
outputting the read at least one of video signal and audio signal.

130. (New) The method of claim 129, further comprising:
transmitting and receiving second information for setting a transmitting and receiving environment between the broadcasting signal receiver and the external storage medium before
the reading at least one video signal and audio signal

131. (New) The method of claim 130, further comprising:
receiving a broadcasting signal;
wherein the outputting the read at least one of video signal and audio signal comprises
reproducing the read at least one of video signal and audio signal from the external storage
medium together with the received broadcasting signal.

132. (New) The method of claim 131, wherein the outputting the first information
comprises outputting the first information as at least one of an On-Screen Display (OSD)
information and an audio signal.

133. (New) The method of claim 132, wherein the outputting the first information further
comprising:
forming a virtual file system for the external storage medium;
generating management information for the external storage medium using the virtual file
system; and
outputting the generated management information as the first information.

134. (New) The method of claim 133, wherein the management information includes
time information corresponding to a storage capacity of the external storage medium, and list
information of at least one of the video signals and audio signals stored on the external storage
medium.

135.(New) The method of claim 134, wherein the reading the at least one video signal and audio signal reads the at least one of video signal and the audio signal, which is selected by a user with reference to the management information, from a plurality of reproducible video signals and audio signals stored in the external storage medium using a Universal Serial Bus protocol.

136. (New) The method of claim 135, further comprising storing the received broadcasting signal in the external storage medium with reference to the management information using the Universal Serial Bus protocol.

137. (New) The method of claim 136, further comprising compressing the received broadcasting signal received and transmitting the compressed broadcasting signal to the external storage medium using the Universal Serial Bus protocol in a compression mode, and restores the at least one of video signal and the audio signal received from an external storage medium using the Universal Serial Bus protocol and outputting the restored at least one of video signal and the audio signal to reproduce the restored at least one of video signal and audio signal in a decompression mode.

138. (New) The method of claim 129, further comprising receiving a broadcasting signal;

wherein the outputting the read at least one of video signal and audio signal comprises reproducing the read at least one of video signal and audio signal from the external storage medium together with the received broadcasting signal.

139. (New) The method of claim 129, wherein the outputting the first information comprises outputting the first information as at least one of an On-Screen Display (OSD) information and an audio signal.

140. (New) The method of claim 129, wherein the outputting the first information comprising:

forming a virtual file system for the external storage medium;
generating management information for the external storage medium using the virtual file system; and
outputting the generated management information as the first information.

141. (New) The method of claim 140, wherein the management information includes time information corresponding to a storage capacity of the external storage medium, and list information of the at least one of video signals and audio signals stored on the external storage medium.

142. (New) The method of claim 141, wherein the reading the at least one of the video signal and the audio signal reads the at least one of video signal and the audio signal, which is selected by a user with reference to the management information, from a plurality of reproducible video signals and audio signals stored in the external storage medium using a Universal Serial Bus protocol.

143. (New) The method of claim 138, further comprising storing the received broadcasting signal in the external storage medium with reference to the management information using the Universal Serial Bus protocol.

144. (New) The method of claim 138, further comprising compressing the received broadcasting signal received and transmitting the compressed broadcasting signal to the external storage medium using the Universal Serial Bus protocol in a compression mode, and restores the at least one of video signal and the audio signal received from an external storage medium using the Universal Serial Bus protocol and outputting the restored at least one of video signal and the audio signal to reproduce the restored at least one of video signal and audio signal in a decompression mode.

145.(New) The method of claim 130, further comprising; receiving a video signal and an audio signal from an external audio video (AV) device; wherein the outputting the read at least one of video signal and audio signal outputs the read at least one of video signal and audio signal from the external storage medium together with the video signal and the audio signal received from the external audio/video device.

146. (New) The method of claim 130, wherein the outputting the read at least one of video signal and audio signal comprising the steps of: displaying the read video signal on a display screen; and outputting the read audio signal through a speaker.

147. (New) A display apparatus capable of being connected to an external storage medium, having a speaker and a display unit for outputting a received television broadcast signal; the apparatus comprising:

a receiving processor that receives the television broadcasting signal;

a Universal Serial Bus (USB) port disposed on the display apparatus and is capable of being connected to the external storage medium;

a Universal Serial Bus (USB) controller to connect to the USB port and receives at least one of a video signal and audio signal from the external storage medium;

a video signal processor to process a video signal from the received television broadcast signal or the received video signal from the external storage medium to output to the display unit;

an audio signal processor to process a audio signal included in the received television broadcasting signal or the received audio signal from the external storage medium and to output to the speaker;

an information receiver to receive a request from a user;

an On Screen Display (OSD) information generator to generate an OSD information to control the external storage medium; and

a controller to control the OSD information generator for displaying the generated OSD information on the display unit when the user request is input through the information receiver and to control the video signal processor and the audio signal processor unit for outputting at least one of the received video signal and the received audio signal from the external storage medium when the external storage medium is connected to the USB port and the user request is input through the information receiver.

148. (New) The apparatus of claim 147, wherein the user input is inputted by a remote controller.

149. (New) The apparatus of claim 147, wherein the user request is inputted by a key.